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Claim 1*

a fiber optic transmission probe, wherein said probe transmits at least one substantially monochromatic radiation from said light source to irradiate a molten sample comprising at least one polycarbonate polymer and/or oligomer and collects light transmitted from said irradiated sample;

a spectrophotometer, wherein said spectrophotometer monitors radiation comprising UV/visible light absorbed by said irradiated sample; and

a data analysis system, wherein said data analysis system correlates absorbance to at least one predetermined reaction component in said molten polycarbonate polymer and/or oligomer sample.

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27. (Amended) A method for *in situ* monitoring of molten polycarbonate polymer and/or oligomer composition comprising:

providing an optical contact between a fiber optic probe and a stream of a molten sample comprising at least one polycarbonate polymer and/or oligomer;

irradiating the molten sample with at least one wavelength of substantially monochromatic radiation;

monitoring UV/visible light adsorbed by the molten sample; and

correlating the UV/visible light absorbed by the irradiated molten sample to levels of at least one reaction component of interest in said molten polycarbonate polymer and/or oligomer sample.

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52. (Amended) The method of claim 27, further comprising evaluating the monitored absorbance to determine whether any one of a set of preselected reaction components needs to be adjusted.

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